Plainville and Southington Farmington Canal Heritage Trail Gap Closure and Connection to CTfastrak Study

Preliminary Scope of Work

May 2015

Overview

The Farmington Canal Heritage Trail (FCHT) is a multi-use trail stretching from New Haven, Connecticut, to Northampton, Massachusetts. Over the years most of the gaps in the trail have been completed, but a significant gap exists in Plainville and part of Southington. The trail will soon extend north from New Haven to West Queen Street in Southington, and south from the Massachusetts state line to the Farmington/Plainville town line. For the most part, existing or soon to be completed portions of the trail use abandoned rail beds for their alignments. Efforts to do the same in Plainville have been unsuccessful.

While most of the FCHT was relatively straightforward to construct, following unused rail beds, Plainville’s portion will present some difficulties and some unique opportunities. The primary difficulty is the presence of an active rail line occupying the trail’s natural alignment. Pan Am Railways currently runs trains from its switching yard north of Plainville Town Hall to customers as far south as West Queen Street in Southington. Portions of the rail line north of Plainville Town Hall are also used to store train cars. The rail bed is very narrow in some sections, making it difficult to do a “rail plus trail” project. The State of Connecticut has previously entered into negotiations to purchase the rail line, but those attempts were unsuccessful.

The north-south road network in Plainville also presents some challenges. A study completed in 2009 (see CRCOG’s website for a copy of this study) resulted in a master plan, but it did not choose a single route. The study included a primary and secondary route along with optional alternative spurs. Each of the routes either crossed or shared the roadway with busy state roads (Routes 177 and 10). Stakeholders who were involved in the previous study and subsequent discussions were unable to move the project forward.

The 2009 study also noted a number of potential obstacles that needed further exploration. The study noted the presence of a number of wetlands along various potential alignments. The study also noted potential issues with floodplains, rail crossings, and rights of way.

Recent developments in the Central Connecticut Region have presented new opportunities for connecting the FCHT to other bicycle trails. The recent completion of the CTfastrak bus rapid transit service also saw the opening of a new multi-use trail adjacent to CTfastrak’s guideway. This five mile long paved trail runs from downtown New Britain to Newington Junction.

The City of New Britain has also begun work on a city-wide bicycle route network. This network will utilize a combination of sharrows, bike lanes, and multi-use trails to provide safe and convenient bicycle access throughout the city.

CRCOG, the Connecticut Department of Transportation, the Town of Plainville, the Town of Southington, the City of New Britain, and the Plainville Greenway Alliance propose initiating a study that will evaluate the feasibility of potential alignments and infrastructure needs for the FCHT through Plainville and a connection to
New Britain’s bicycle network and CTfastrak multi-use trail. The goal is to use this study to identify a preferred alignment for both the FCHT and a connection to New Britain that can transition to preliminary engineering and final design in a future project. The study will be broken into two phases: the first will focus on the FCHT in Plainville; after the completion of phase one, the second phase will address the connection between the FCHT to the CTfastrak multi-use trail. This study will:

• Collect the results of all previous studies and trail development efforts
• Develop concepts for potential routes from West Queen Street in Southington to just south of the Farmington/Plainville town line (where it will meet a planned extension of Farmington’s portion of the trail)
• Develop concepts for potential routes from Plainville to the Downtown New Britain CTfastrak station
• Identify all foreseeable obstacles to each route
• Collect data on traffic patterns (speed, volume, turning movements, etc.)
• Identify safety issues for each potential route
• Engage the public in all aspects of the study, including identifying possible routes, assessing potential obstacles, designing concepts for infrastructure/road treatments, and selecting the final route
• Develop cost estimates for each potential alignment
• Identify a final alignment and associated necessary/desirable infrastructure/treatments
• Identify potential funding sources to implement the plan
• Identify next steps including necessary permits, rights-of-way acquisitions, and areas requiring further study or design
• While this study will not involve preliminary or final design, the goal is to have potential alignments vetted as thoroughly as possible so follow-up projects can proceed as smoothly as possible

The study will be carried out over an 18 to 24 month period by CRCOG and a consultant. Representatives from CTDOT, the Town of Plainville, the Town of Southington, the City of New Britain, the Plainville Greenway Alliance, and the general public will be consulted throughout the process. A Steering Committee will help direct the study.

CRCOG reserves the right to award each phase separately. CRCOG also reserves the right to decide not to award a contract for either phase of the study.

The Study Area

The study will be broken into two phases. The study area for the first phase is the Town of Plainville and the Town of Southington North of West Queen Street. Some coordination with the Town of Farmington will also be necessary. The phase one study’s primary focus will be the Town of Plainville.

Phase one will explore all potential routes through town following a generally north-south alignment. Some potential routes/portions of routes that have previously been identified include:

• acquisition of railroad right-of-way, relocation of the rails to permit trail alongside, and leaseback to the RR for their continued operations
• installation of a boardwalk style trail through wetlands as currently being planned for part of the gap closure in Cheshire
• use of the land adjacent to the old canal in as many places as this is feasible
• installation of a center esplanade on Broad St. for use by cyclists and pedestrians
• installation of a well-designed switchback style bridge to carry the trail over the railroad in the existing classification yard north of the town center
• installation of a bridge across Northwest Dr., if possible, using the existing buttress remaining from the removal of the old railroad bridge.

The study area for phase two will be a corridor approximately one-mile wide extending from the western border of Plainville to the Downtown New Britain CTfastrak station, centered on Route 72. Due to the topography of the area, CRCOG is preliminarily limiting the study to this corridor but will entertain alternative proposals.

The Goal
Due to the history of the FCHT, and the difficulty of building the Plainville section of the FCHT as a “rails to trails” project, this study will be somewhat unique. The targeted demographic for the trail will closely mirror that of existing FCHT sections (families with children, older riders, inexperienced riders, etc.); route selection and eventual trail design, however, may not be able to follow the more straightforward path used for other sections of the trail.

Therefore, the goal for this project will be to create a bicycle and pedestrian route that is (to quote the City of Vancouver’s vision for cycling infrastructure): safe, convenient, comfortable and fun for people of all ages and abilities. In both phases of this study we will be working to determine which routes can best meet that vision.

Public Involvement
CRCOG and its partners believe that a high level of stakeholder engagement will be key to the success of this study. A variety of methods of engaging the public will be employed in this study. The primary methods should include: an advisory committee made up of stakeholders; informational public meetings; workshops; site visits with stakeholders and the general public; town council meetings; the news media; and online/social media. CRCOG and its partners are interested in seeing innovative public involvement/engagement methods being used for this study. We would like to see a wide variety of avenues for providing input and helping to guide the process. The sections below provide more details on the minimum level of public involvement CRCOG expects to see.

Phase Two will also involve outreach to limited English proficiency (LEP) populations located in New Britain and Plainville. LEP populations will include Spanish-speaking communities and Polish-speaking communities.

Advisory Committee
CRCOG and the selected consultant will form an advisory committee for each phase with representatives from the following: the Town of Plainville, the Town of Southington, the City of New Britain, CTDOT, the Plainville Greenway Alliance, local businesses, and residents. The Towns of Plainville and Southington and the City of New Britain will each appoint members of the committee. The committee will be involved at every milestone in the process. They will help direct the public involvement tasks and will review deliverables at each milestone in the project. They will also offer assistance with reaching out to town officials and other stakeholder groups.

Workshops
CRCOG and its partners recognize that as the eventual users of the trail being studied, the public should have an opportunity to help guide the trail’s design. CRCOG envisions a series of workshops focused on different parts of trail design, from route selection to determining which treatments or infrastructure might be necessary or desirable. CRCOG is particularly interested in methods that involve an iterative approach.
Town/City Council Meetings
Town councils in Plainville and Southington should be briefed on the study at multiple points during the process. The New Britain Common Council should also be briefed on the study at multiple points during the process.

News/Online/Social Media
In an effort to engage a broad cross-section of the community, traditional news media, online news media, and social media should be employed. Online survey tools should also be used. CRCOG is interested in using innovative online methods of soliciting input and distributing information.

Study Deliverables
Technical memoranda will be required at critical milestones for both Phase One and Phase Two of the study (see below). A Final Report and Executive Summary will be produced for each phase that includes all technical memoranda, the Implementation Plan, and a public participation summary. Each deliverable will be made available to the public prior to being finalized.

Draft Study Task Outline – Phase One
The project is expected to be broken into seven (7) tasks, summarized as follows. Except where noted, all tasks will be completed by the selected consultant. The Draft Study Task Outline is presented as a guide for respondents in preparing their proposals. CRCOG encourages respondents to modify this draft scope to better reflect their approach to this project.

Task 1. Project Management
1.1. Management and Administrative Control: This study will be organized to integrate affected parties into the planning process. CRCOG will serve as the lead agency with technical assistance by a consultant. Coordination and input from all stakeholders such as CTDOT, local advocacy groups, and the participating municipalities will be ongoing. At a minimum, coordination conference calls every two weeks will be scheduled with CRCOG to discuss study progress.
1.2. Reporting: Monthly progress reports and invoices will be prepared by the consultant to keep the project on schedule.

*Deliverable: Bi-weekly coordination calls & Monthly progress reports and invoices*

Task 2. Community Involvement
2.1. Advisory Committee Meetings: An Advisory Committee will be assembled to help guide the study process and assist in evaluating the feasibility of alternatives. It is expected that the Consultant will meet with the Advisory Committee at least twelve (12) times throughout the study. The consultant will schedule the meetings, send out an announcement, prepare agendas, and take minutes for each meeting.

*Deliverable: Agendas, Announcements, and Minutes for Advisory Committee Meetings*

2.2. Focus Group Meetings: Focus group(s) will also be formed as needed throughout the study and will be comprised of those with special interest or technical knowledge of the topic. Some of these meetings are intended to work directly with municipal and CTDOT staff to ensure that technical aspects of the study alternatives are feasible. At least one meeting with CTDOT State Design will be held to review concepts and to coordinate with other anticipated projects. It is expected that at least...
(10) meetings will be necessary. The consultant will schedule the meetings, send out an announcement, prepare agendas, and take minutes for each meeting.

**Deliverable: Agendas, Announcements, and Minutes for Focus Group Meetings and Summary of Meeting Findings**

2.3. Public Engagement and Workshops: Members of the public are an integral part of the planning team for this project. As such, members of the public will be given the opportunity to be actively involved in each of the project’s tasks. Public involvement in the selection of potential routes and infrastructure elements is of particular importance and is integral to the project. Workshops regarding inventory mapping, data collection, route selection, infrastructure/facility selection, and selection of a preferred alternative will be held.

CRCOG is open to innovative forms of public engagement, including those that utilize an iterative process. The quality of each proposal’s public involvement process and schedule (as well as the proposer’s experience with public involvement) will be a critical factor in the evaluation of responses to this RFQ. CRCOG expects that at least six (6) public engagement meetings will be held. CRCOG expects that, at a minimum, public engagement meetings will held to solicit feedback on existing conditions, the development of potential routes, and the selection of a final preferred route.

**Deliverable: Agendas, Announcements, and Minutes for Public Engagement and Workshops; Report on Results of Public Engagement and Workshops**

2.4. Dissemination of Public Information: the consultant will develop and disseminate information on the project and its progress for the public

2.4.1. Develop (with assistance from the Advisory Committee) and maintain contact lists of registered interested parties.

**Deliverable: Interested Parties Contact List**

2.4.2. Develop and utilize a variety of methods to keep the public and registered interested parties apprised of study progress, including, but not limited to:

- Newsletters
- E-mailed meeting invitations
- E-mailed status updates
- Social media such as Facebook and Twitter
- A project website developed and maintained by the CONSULTANT
- Press releases to print, radio, internet, and television news outlets

**Deliverable: Study website and public information products**

2.4.3. Public Information Meetings: Public Meetings/Open Houses/Planning Workshops will be held at key milestones (at least five (5)) throughout the Study to obtain public input. CRCOG will coordinate and participate in these open houses/meetings with the consultant presenting information on the Study and engaging attendees in the study process.

**Deliverable: Agendas, Announcements, and Minutes for Public Information Meetings; Report on Participant Feedback**
2.5. Stakeholder Interviews: key community representatives and groups will be interviewed to gain insight on past efforts and information that may be useful to the study.

*Deliverable: Interview Summary and Report on Past Efforts*

2.6. Surveys: develop and administer surveys to better understand preferences regarding various routes as well as to allow the public an opportunity to give input on other aspects of the project, such as issue identification. CRCOG anticipates the need for at least two (2) separate surveys. An initial survey would be used to gauge interest in the trail and gather feedback on people’s experiences with existing sections of the trail and bicycle/pedestrian travel in the area. The second survey would be focused on potential alignments and associated infrastructure. CRCOG is open to the inclusion of additional surveys.

*Deliverable: Development of surveys*

*Deliverable: Summary of survey results and analysis*

2.7. Town Council/Board of Selectmen and CRCOG Transportation Committee/Policy Board Meetings: Council/Selectmen meetings in each community will be scheduled. At least two (2) meetings in each community (Plainville and Southington) will be held. The first meeting will serve to introduce the study, existing conditions, anticipated future operations, and preliminary alternatives. The second meeting will present the study recommendations and will seek final endorsement. Additionally, one (1) presentation to the CRCOG Transportation Committee and one (1) presentation to the CRCOG Policy Board will be made to inform and seek final endorsement.

*Deliverable: Municipal and CRCOG endorsement of study recommendations*

2.8. Public Involvement Summary: summarize and include in the final report all public involvement efforts.

*Deliverable: Public Involvement Summary*

**Task 3. Data Collection & Base Maps**

3.1. Collect Data: assemble previously collected data and studies, as well as collect new data where necessary. This will include at least:

- Images or video of existing trail character and features north and south of planning study corridor
- Previous reports, related studies
- Currently planned or programmed transportation improvements
- Inventory of traffic control devices and obtain signal plans
- Signage and pavement marking inventory
- Roadway and geometric conditions
- Inventory of access drives along potential routes
- Current traffic volumes and speeds
- Trail usage counts on existing sections of the Farmington Canal Heritage Trail; counts should include portions of the trail that are near study area (the beginning and the end of the gap) as well as more prominent sections of the existing trail
- Turning movement counts at intersections that are part of potential alignments (identified in Task 5 below)
- Crash data
- Incident management/emergency response plans
- Transit and commuter facilities and services (CTtransit)
• Inventory of existing and planned bicycle and pedestrian facilities
• Inventory of natural resources
• Inventory of historic, cultural, archaeological & architectural resources
• Inventory of wetland & surface water resources
• Study area development in construction, approved, or planned for near-term
• Existing land uses, zoning & development regulations
• Land ownership where necessary

3.2. Develop Base Maps: develop base maps using GIS software and available data that will include, but not be limited to:

• Existing bicycle and pedestrian facilities and amenities
• Existing and proposed on-road facilities to enable safe travel for the targeted user group
• Environmentally sensitive areas
• Land use and ownership
• Transportation infrastructure, including bus, rail, and air

**Deliverable: Set of Inventory Maps and Data Collection Report**

**Task 4. Assessment of Existing Conditions**

4.1. Work with municipal officials and stakeholder groups to compile a complete history of the project, including:

• Previously completed studies
• State efforts to develop a trail
• Previous/ongoing efforts to acquire land for the trail
• Trail design and construction efforts in adjacent municipalities, especially Farmington’s completion of their portion of the trail

4.2. Review existing data, collect missing data, and analyze data (see Task 3.1 above)

4.3. Conduct a detailed review of current alignments proposed by advocacy groups, municipal authorities, including, but not limited to, these more extreme examples:

• acquisition of railroad right-of-way, relocation of the rails to permit trail alongside, and leaseback to the RR for their continued operations
• installation of a boardwalk style trail through wetlands as currently being planned for part of the gap closure in Cheshire
• use of the land adjacent to the old canal in as many places as this is feasible
• installation of an esplanade on Broad St. for use by cyclists and pedestrians
• installation of a well-designed switchback style bridge to carry the trail over the railroad in the existing switching yard north of the town center
• installation of a bridge across Northwest Dr., if possible, using the existing buttress remaining from the removal of the old railroad bridge

Other potential alignments should be researched and examined for optimal design.

**Deliverable: Technical Memorandum – Assessment of Existing Conditions**
Task 5. Identification and Analysis of Alternatives

5.1. Develop Preliminary Alternatives: based on public input, existing conditions, a study of previous planning efforts, and a thorough site review, a variety of alternative routes will be developed and presented to the public. This will involve:

- Development of sketch-level concepts (to be presented to members of the general public) of what various aspects of each alignment could look like
- Analysis of potential infrastructure needs for each alternative
- Analysis of potential safety issues including safety issues that may be caused by potential infrastructure elements
- Assessment of safety, attractiveness, and comfort issues for each alternative
  - The safety assessment will include areas not directly on the trail that would be integral to accessing the trail (the target demographic for the trail, which includes families with young children, must be considered in the evaluation of each alternative)
  - Analysis for each alternative of potential right-of-way, environmental, and other impacts identified, and their associated costs, including impacts involving:
    - Roadway systems
    - Access management
    - Necessary intersection improvements (operations, geometry)
    - Safety improvements
    - New off-road trail construction needs
    - Property ownership, including potential acquisition/easement costs
    - Traffic calming
    - Landscape treatments
    - Green infrastructure
    - Future maintenance costs
  - Development of high-level planning cost estimates that may be encountered in future projects, including: right-of-way acquisition, permitting, environmental mitigation, infrastructure requirements, and engineering/design

Alternatives will be based on data collected in earlier tasks and will be developed with significant input from the public. Proposed alternatives should not be limited to those that have been identified in previous studies.

Deliverable: Trail alignment sketch-level concept plans and an alternatives matrix

5.2. Select a preferred alignment

5.2.1. Develop a "solution selection matrix" suitable for weighing all alignments and selecting one final alignment that is thoroughly feasible and documented

5.2.2. Work with CTDOT and municipal officials to evaluate infrastructure options for each alignment for compliance with local, state, and national standards

5.2.3. Selection of Preferred Alternative: through a wide-ranging public involvement process and a thorough review of all foreseeable costs and benefits of each alternative alignment, a final alignment, that is both buildable and defendable, will be chosen

5.3. Refine chosen alignment: once chosen, the final preferred alignment will be further developed to present a better idea of what will be required to implement it. This will include, but not be limited to:
- A map showing the potential infrastructure requirements of each segment of the final alignment as well as any necessary road improvements to allow safe access to the trail
- Sketch-level concepts of each segment showing typical infrastructure/treatment
- Detailed planning-level cost estimates for each segment of the chosen alignment

**Deliverable: Technical Memorandum – Alternatives Analysis**

**Task 6. Implementation Plan for Preferred Alternative**

6.1. Identify next steps that will be required to formally initiate the preferred alternative as a project
6.2. Based on information from Task 5, identify safety improvements that may be necessary (both on and off the preferred alignment) and develop preliminary cost estimates
6.3. Perform sufficient boundary and topographic survey to determine constraints of final alignment to be considered in future engineering and design of that alignment
6.4. Identify potential funding sources
6.5. Establish a timetable and identify major stakeholders for next steps to be taken by municipalities and/or advocacy groups to move the project from planning to design/engineering and construction
6.6. Develop GIS files of the final alignment along with annotations noting suggested infrastructure treatments for each section of the route and export to Microstation format
6.7. Conduct thorough review of final alignment/concept development with municipal, state, and federal authorities having jurisdiction.

**Deliverable: Preliminary Implementation Plan**

**Task 7. Final Report and Executive Summary**

7.1. Assemble Public Involvement Summary, Inventory Mapping, Assessment of Existing Conditions, Alternatives Analysis, and Preliminary Implementation Plan
7.2. Review and incorporate comments from the public, Advisory Committee, municipal officials/staff, CRCOG, and CTDOT
   7.2.1. Distribute copies to stakeholders
7.3. Prepare media materials for press releases and social media campaigns. Assist with development of an effective effort to promulgate final alignment and conceptual ideas to as wide a constituency as practical

**Deliverable: Final Report and Executive Summary**

**Draft Study Task Outline – Phase Two**

Phase Two, which will focus on a connection to New Britain, is expected to be broken into seven (7) tasks, summarized as follows. The tasks listed here closely mirror the tasks in Phase One. Except where noted, all tasks will be completed by the selected consultant. The Draft Study Task Outline is presented as a guide for respondents in preparing their proposals. CRCOG encourages respondents to modify this draft scope to better reflect their approach to this project.

**Task 1. Project Management**

1.1. Management and Administrative Control: This study will be organized to integrate affected parties into the planning process. CRCOG will serve as the lead agency with technical assistance by a consultant. Coordination and input from all stakeholders such as CTDOT, local advocacy groups, and the participating municipalities will be ongoing. At a minimum, coordination conference calls every two weeks will be scheduled with CRCOG to discuss study progress.
1.2. Reporting: Monthly progress reports and invoices will be prepared by the consultant to keep the project on schedule.

**Deliverable: Bi-weekly coordination calls & Monthly progress reports and invoices**

Task 2. Community Involvement

2.1. Advisory Committee Meetings: An Advisory Committee will be assembled to help guide the study process and assist in evaluating the feasibility of alternatives. It is expected that the Consultant will meet with the Advisory Committee at least twelve (12) times throughout the study. The consultant will schedule the meetings, send out an announcement, prepare agendas, and take minutes for each meeting.

**Deliverable: Agendas, Announcements, and Minutes for Advisory Committee Meetings**

2.2. Focus Group Meetings: Focus group(s) will also be formed as needed throughout the study and will be comprised of those with special interest or technical knowledge of the topic. Some of these meetings are intended to work directly with municipal and CTDOT staff to ensure that technical aspects of the study alternatives are feasible. At least one meeting with CTDOT State Design will be held to review concepts and to coordinate with other anticipated projects. It is expected that at least (10) meetings will be necessary. The consultant will schedule the meetings, send out an announcement, prepare agendas, and take minutes for each meeting.

**Deliverable: Agenda, Announcements, and Minutes for Focus Group Meetings and Summary of Meeting Findings**

2.3. Public Engagement and Workshops: Members of the public are an integral part of the planning team for this project, and as such, will be given the opportunity to be actively involved in each of the project’s tasks. Workshops regarding inventory mapping, data collection, route selection, infrastructure/facility selection, and selection of a preferred alternative will be held.

CRCOG is open to innovative forms of public engagement, including those that utilize an iterative process. The quality of each proposal’s public involvement process and schedule (as well as the proposer’s experience with public involvement) will be a critical factor in the evaluation of responses to this RFQ. CRCOG expects that at least six (6) public engagement meetings will be held. CRCOG expects that, at a minimum, public engagement meetings will held to solicit feedback on existing conditions, the development of potential routes, and the selection of a final preferred route and infrastructure concepts.

**Deliverable: Agendas, Announcements, and Minutes for the Public Engagement and Workshops meetings; Report on Results of Public Engagement and Workshops**

2.4. Dissemination of Public Information: the consultant will develop and disseminate information on the project and its progress for the public

2.4.1. Develop (with assistance from the Advisory Committee) and maintain contact lists of registered interested parties.

**Deliverable: Interested Parties Contact List**

2.4.2. Develop and utilize a variety of methods to keep the public and registered interested parties apprised of study progress, including, but not limited to:
• Newsletters
• E-mailed meeting invitations
• E-mailed status updates
• Social media such as Facebook and Twitter
• A project website developed and maintained by the CONSULTANT
• Press releases to print, radio, internet, and television news outlets

Deliverable: Study website and public information products

2.4.3. Public Information Meetings: Public Meetings/Open Houses/Planning Workshops will be held at key milestones (at least five (5)) throughout the Study to obtain public input. CRCOG will coordinate and participate in these open houses/meetings with the consultant presenting information on the Study and engaging attendees in the study process.

Deliverable: Agendas, Announcements, and Minutes for Public Information Meetings; Report on Participant Feedback

2.5. Outreach to Limited-English Proficiency Populations: Phase Two will involve communities with significant Limited-English Proficiency Populations. Such populations will include Spanish-speaking and Polish-speaking communities.

2.6. Stakeholder Interviews: key community representatives and groups will be interviewed to gain insight on past efforts and information that may be useful to the study.

Deliverable: Interview Summary and Report on Past Efforts

2.7. Surveys: develop and administer surveys to better understand preferences regarding various routes as well as to allow the public an opportunity to give input on other aspects of the project, such as issue identification. CRCOG anticipates the need for at least two (2) separate surveys. An initial survey would be used to gauge interest in the trail connection and gather feedback on people’s experiences with existing trails and bicycle/pedestrian travel in the area. The second survey would be focused on potential alignments and associated infrastructure. CRCOG is open to the inclusion of additional surveys.

Deliverable: Development of surveys

Deliverable: Summary of survey results and analysis

2.8. Common Council/Town Council and CRCOG Transportation Committee/Policy Board Meetings: Council/Selectmen meetings in each community will be scheduled. At least two (2) meetings in each community (Plainville, Southington, and New Britain) will be held. The first meeting will serve to introduce the study, existing conditions, anticipated future operations, and preliminary alternatives. The second meeting will present the study recommendations and will seek final endorsement. Additionally, one (1) presentation to the CRCOG Transportation Committee and one (1) presentation to the CRCOG Policy Board will be made to inform and seek final endorsement.

Deliverable: Municipal and CRCOG endorsement of study recommendations

2.9. Public Involvement Summary: summarize and include in the final report all public involvement efforts.

Deliverable: Public Involvement Summary
Task 3. Data Collection & Base Maps

3.1. Collect Data: assemble previously collected data and studies, as well as collect new data where necessary. This will include at least:

- Images or video of existing bicycle infrastructure in the study area
- Previous reports, related studies
- Currently planned or programmed transportation improvements
- Inventory of traffic control devices signal plans
- Signage and pavement marking inventory
- Roadway and geometric conditions
- Inventory of access drives along potential routes
- Current traffic volumes and speeds
- Trail usage counts on existing designated bike routes in New Britain and the CTfastrak multi-use trail
- Turning movement counts at intersections that are part of potential alignments (identified in Task 5 below)
- Crash data
- Incident management/emergency response plans
- Transit and commuter facilities and services (CTtransit)
- Inventory of existing and planned bicycle and pedestrian facilities
- Inventory of natural resources
- Inventory of cultural, historic, archaeological & architectural resources
- Inventory of wetland & surface water resources
- Study area development in construction, approved, or planned for near-term
- Existing land uses, zoning & development regulations
- Land ownership where necessary

3.2. Develop Base Maps: develop base maps using GIS software and available data that will include, but not be limited to:

- Existing bicycle and pedestrian facilities and amenities
- Existing and proposed on-road facilities to enable safe travel for the targeted user group
- Environmentally sensitive areas
- Land use and ownership
- Transportation infrastructure, including bus, rail, and air

Deliverable: Set of Inventory Maps and Data Collection Report

Task 4. Assessment of Existing Conditions

4.1. Work with municipal officials and stakeholder groups to compile a complete history of bike planning efforts in the area:

- Previously completed studies
- Previous/ongoing efforts to develop bicycle routes
- Trail design and construction efforts in adjacent municipalities

4.2. Review existing data, collect missing data, and analyze data (see Task 3.1 above)

Deliverable: Technical Memorandum – Assessment of Existing Conditions
Task 5. Identification and Analysis of Alternatives

5.1. Develop Preliminary Alternatives: based on public input, existing conditions, a study of previous planning efforts, and a thorough site review, a variety of alternative routes will be developed and presented to the public. This will involve:

- Development of sketch-level concepts (to be presented to members of the general public) of what various aspects of each alignment could look like
- Analysis of potential infrastructure needs for each alternative
- Analysis of potential safety issues including safety issues that may be caused by potential infrastructure elements
- Assessment of safety, attractiveness, and comfort issues for each alternative
  - The safety assessment will include areas not directly on the trail that would be integral to accessing the trail (the target demographic for the trail, which includes families with young children, must be considered in the evaluation of each alternative)
- Analysis for each alternative of potential right-of-way, environmental, and other impacts identified, and their associated costs, including impacts involving:
  - Roadway systems
  - Access management
  - Necessary intersection improvements (operations, geometry)
  - Safety improvements
  - New off-road trail construction needs
  - Property ownership, including potential acquisition/easement costs
  - Traffic calming
  - Landscape treatments
  - Green infrastructure
  - Future maintenance costs
- Development of high-level planning cost estimates that may be encountered in future projects, including: right-of-way acquisition, permitting, environmental mitigation, infrastructure requirements, and engineering/design

Alternatives will be based on data collected in earlier tasks and will be developed with significant input from the public. Proposed alternatives should not be limited to those that have been identified in previous studies.

Deliverable: Trail alignment sketch-level concept plans and an alternatives matrix

5.2. Select a preferred alignment

5.2.1. Develop a "solution selection matrix" suitable for weighing all alignments and selecting one final alignment that is thoroughly feasible and documented

5.2.2. Work with CTDOT and municipal officials to evaluate infrastructure options for each alignment for compliance with local, state, and national standards

5.2.3. Selection of Preferred Alternative: through a wide-ranging public involvement process and a thorough review of all foreseeable costs and benefits of each alternative alignment, a final alignment, that is both defendable and buildable, will be chosen

5.3. Refine chosen alignment: once chosen, the final preferred alignment will be further developed to present a better idea of what will be required to implement it. This will include, but not be limited to:
- A map showing the potential infrastructure requirements of each segment of the final alignment as well as any necessary road improvements to allow safe access to the bike route
- Sketch-level concepts of each segment showing typical infrastructure/treatment
- Detailed planning-level cost estimates for each segment of the chosen alignment

**Deliverable: Technical Memorandum – Alternatives Analysis**

**Task 6. Implementation Plan for Preferred Alternative**

6.1. Identify next steps that will be required to formally initiate the preferred alternative as a project
6.2. Based on information from Task 5, identify safety improvements that may be necessary (both on and off the preferred alignment) and develop preliminary cost estimates
6.3. Perform sufficient boundary and topographic survey to determine constraints of final alignment to be considered in future engineering and design of that alignment
6.4. Identify potential funding sources
6.5. Establish a timetable and identify major stakeholders for next steps to be taken by municipalities and/or advocacy groups to move the project from planning to design/engineering and construction
6.6. Develop GIS files of the final alignment along with annotations noting suggested infrastructure treatments for each section of the route and export to Microstation format
6.7. Conduct thorough review of final alignment/concept development with municipal, state, and federal authorities having jurisdiction.

**Deliverable: Preliminary Implementation Plan**

**Task 7. Final Report and Executive Summary**

7.1. Assemble Public Involvement Summary, Inventory Mapping, Assessment of Existing Conditions, Alternatives Analysis, and Preliminary Implementation Plan
7.2. Review and incorporate comments from the public, Advisory Committee, municipal officials/staff, CRCOG, and CTDOT
7.3. Distribute copies to stakeholders
7.4. Prepare media materials for press releases and social media campaigns. Assist with development of an effective effort to promulgate final alignment and conceptual ideas to as wide a constituency as practical

**Deliverable: Final Report and Executive Summary**